

THE INVENTION CLAIMED IS

1. A process comprising:
  - providing a predetermined amount of a gel;
  - fractionating said gel;
  - adding a predetermined amount of an energetic material to said fractionated gel to form a uniform dispersion of gel and energetic material;
  - adding a solvent to said uniform dispersion; and
  - drying said uniform dispersion to reform said gel to form a composite wherein said energetic material is uniformly dispersed throughout said reformed gel.
2. The process recited in claim 1, wherein said gel is a monolith made from a metal alkoxide.
3. The process recited in claim 1, wherein said gel is a silica gel made from tetramethyl orthosilicate (TMOS).
4. The process recited in claim 1, wherein said energetic material is RDX or PETN.

5. The product produced by the process recited in claim 1.

6. A method comprising:

dissolving at least one silicon alkoxide in a solvent to form a silicon alkoxide solution;

dissolving at least one energetic material in a solvent to form an energetic material solution, said solvent being the same solvent as said silicon alkoxide is dissolved in;

dissolving a catalyst in a solvent to form a catalyst solution, said solvent being the same solvent as said silicon alkoxide is dissolved in;

pouring alternating portions of said catalyst solution and said energetic material solution into said silicon alkoxide solution with stirring to form a gel precursor solution;

allowing said gel precursor solution to gel; and

drying said gel to form an energetic composite having energetic molecules crystallized within the pores of a silicon sol-gel material.